

Docket No.: 3254-0121PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Young-Nam HWANG et al.

Application No.: 10/501,910

Confirmation No.: 8720

Filed: July 20, 2004

Art Unit: 1771

For: A COMPOSITE SHEET USED FOR
ARTIFICIAL LEATHER WITH LOW
ELONGATION AND EXCELLENT
SOFTNESS

Examiner: A. T. Piziali

DECLARATION UNDER 37 CFR 1.132

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, HWANG, Young-Nam, do declare and say as follows:

1. I am a graduate from Seoul National University on February 24, 1994, specializing in textile and polymer sciences.
2. I have been employed by Kolon Industries, Inc., from November 1, 1993 to the present in the position of Senior Research at Kolon Central Research Park.
3. The following comparative tests were performed under my direction and control:

Samples Nos. 1 and 2 were conducted to point out one of the features of the present invention wherein the ultrafine fiber constituting the unwoven fabric and the ultrafine fiber

constituting the woven (knitted) fabric are made of the same resin.

Thus Samples 1 and 2 shown in the Table below were prepared in the same manner, using the same method as that in Example 1 of the present application and these samples were also dyed under the same dyeing conditions and those samples are attached to the present Declaration for the Examiner's observation.

TABLE

Sample No.	Non-Woven		SCRIM (Woven Fabrics)		Reference
	Kind of fine fiber	Fineness	Kind of fine fiber	Fineness	
No. 1	Polyethylene Terephthalate (PET)	0.07 denier	Polyethylene Terephthalate (PET)	0.06 denier	Same as the present invention
No. 2	Polyethylene Terephthalate (PET)	0.07 denier	Polyamide (Nylon)	1.05 denier	Different from the present invention

As can be seen by referring to the Table, Sample 1 was polyethylene terephthalate (PET) for both the non-woven fiber and the woven fiber whereas Sample 2 uses polyethylene terephthalate (PET) for the non-woven fiber and a polyamide (Nylon) for the woven fiber.

By utilizing the same resin for both the non-woven and woven fibers, dyeing compatibility between the non-woven and woven fibers is achieved when using dispersed dyes, resulting in a composite sheet (Sample 1) having a deep color and excellent appearance. Also, the composite sheet of the present invention (Sample 1) exhibits excellent softness when compared to Sample 2 which utilizes different resins for the non-woven and woven fibers.

Samples 1 and 2 were further evaluated as to color, touchness and roughness with the following results:

DATA FOR COLOR

	L*	a*	b*
Sample No. 1	44.9	-5.4	-11.6
Sample No. 2	47.0	-5.7	-11.9

The parameters L*, a* and b*, which are well known in the textile art, were measured using a standard color matching machine. The L* parameter identifies the lightness of the colors of Samples 1 and 2. Thus a lower value for L* indicates that the deepness of the color is increased. Thus, since Sample 1 has a lower L* value when compared to Sample 2, Sample 1 has a deeper color when compared to Sample 2.

DATA FOR TOUCHNESS

	Opposite Direction Toward Raising Fiber	
	Static Friction Coefficient	Kinetic Friction Coefficient
Sample 1	1.7	1.3
Sample 2	1.2	1.1

The touchness of the respective Samples is measured by the friction coefficient. The higher the static friction coefficient and the high the kinetic friction coefficient the better is the touchness quality. The friction coefficients were measured by using a friction coefficient tester of Toyosik Company with a 200g pendulum as is well known in the art.

Roughness (Appearance)

The roughness of the textile fibers of Samples 1 and 2 was measured by an optical microscope and a laser scanning microscope (Olimpus Company LECT 3100). The roughness property of Samples 1 and 2 relates to the prominence of the surface of the samples. As shown in the attached photographs, the surfacial prominence (roughness) of Sample 1 (Attachments 1 and 2) is smaller and more even than the surfacial prominence of Sample 2 (Attachments 3 and 4).

I hereby declare that all statements made herein of my own knowledge are true and that

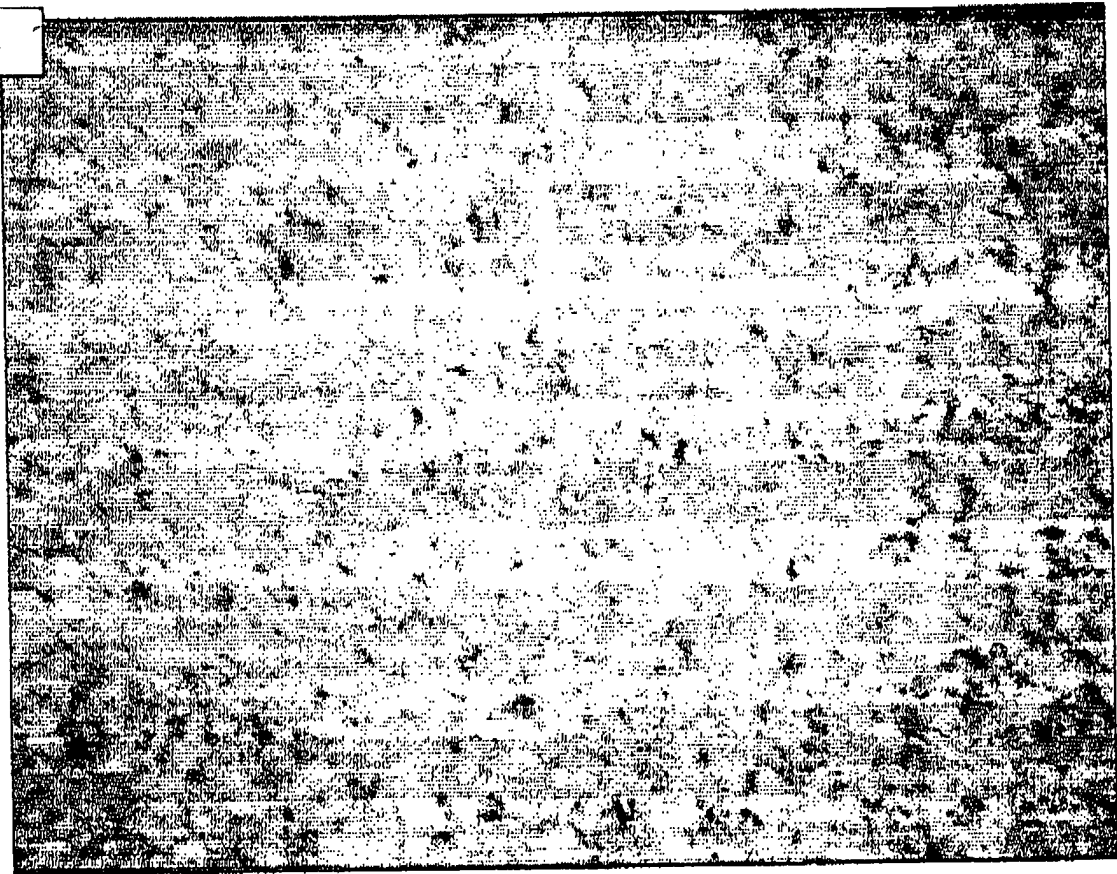
all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: July 28, 2008

By: HWANG Young-Nam
HWANG, Young-Nam

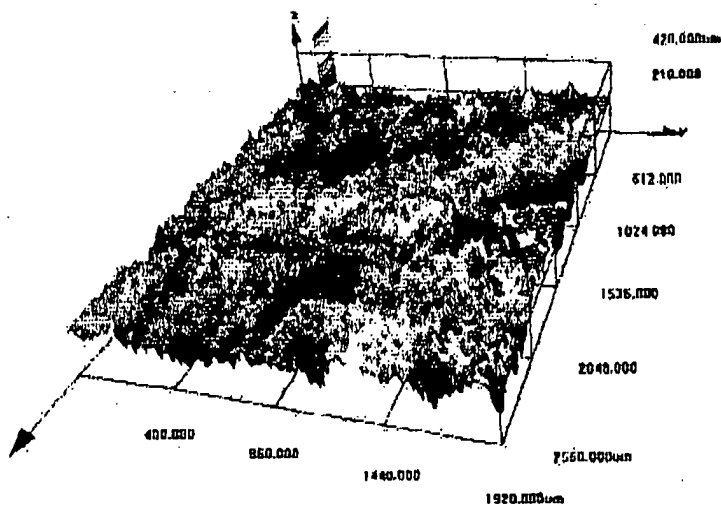
Attachment 1

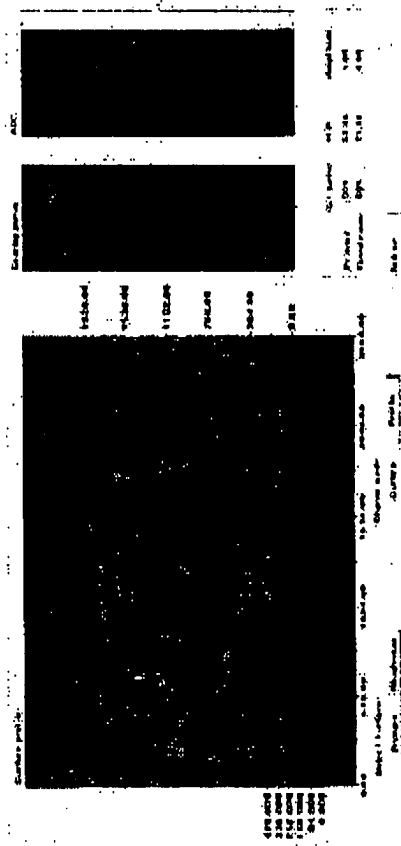
Sample 1



Data name : TILING_171.ole
Comment :
Ob : 5x
Zoom : 1.0x
Acc : XYZ
Info : CF-H-C

Roughness (Ra 혹은 Sa) Value : 32.83





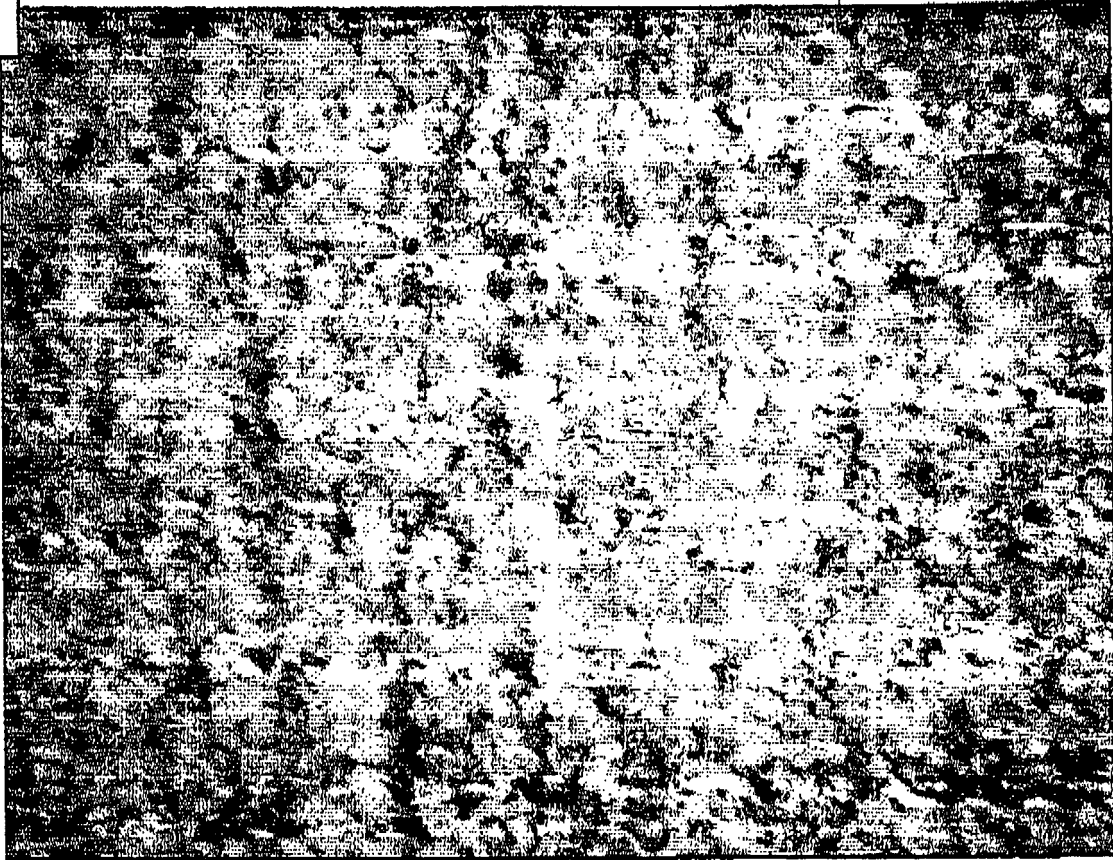
Objective Lens : MFJFLN 5x
Zoom : 1
Image Pixels : 1024 x 768
Amplifier : Contrast

#	J. - 2nd	SPB	SPV	SPZ	SPZ	SPB	SPB
4		119.000	183.981	301.657	0.000	32.832	42.177

SRJit	2023-06
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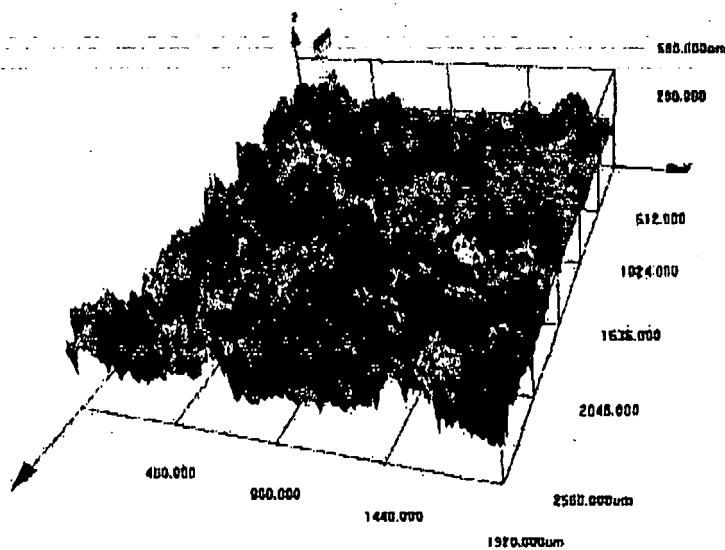
Attachment 3

Sample 2

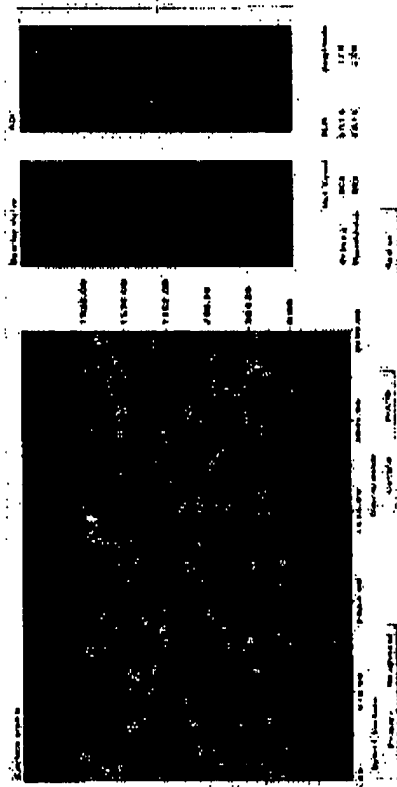
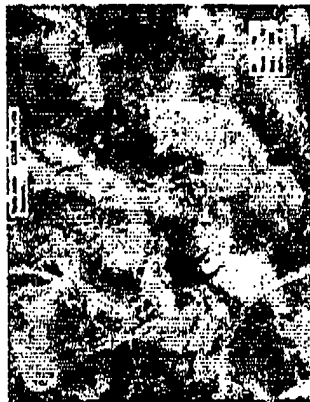


Data name: TILING_172.obj
Comment:
Ob: fix
Zoom: 1.0x
Act: XYZ
Info: CF-H-C

Roughness (Ra 혹은 Sa) Value : 52.56



Attachment 4



Objective Lens : MPLFLN 5x
Zoom : 1
Image Pixels : 1024 x 768
Amplifier : Contrast

#	Area	SRa	SRv	SRz	SRx	SRy	SRz
5		218.551	208.615	524.188	0.000	52.568	83.427

SRz10	508.429
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Examiner: A. T. Piziali

PETITION FOR FILING EXHIBIT UNDER 37 CFR 1.91

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

*Do not Separate
Petition and
Sample.*

Sir:

INTRODUCTORY COMMENTS

In response to the Examiner's Office Action dated August 13, 2008, the following Exhibit and remarks are respectfully submitted in connection with the above-identified application.

Remarks begin on page 2 of this paper.

Exhibit of Actual Samples is attached hereto.

REMARKS

Applicants respectfully submit herein actual Samples 1 and 2 in the form of Exhibit to prove patentability of the present invention.

As disclosed in Declaration, which is filed together with this Exhibit, Samples 1 and 2 in the Declaration correspond to actual Sample 1 of the claimed invention and actual Sample 2 of the applied art including Mizocuchi, Honda, etc., respectively. Specifically, actual Sample 1 is prepared by the same resins for the non-woven fabric and woven fabric layers and with the claimed fineness range. Actual Sample 2 is prepared by different resins for the non-woven fabric and woven fabric layers with outside of the claimed fineness ranges.

The Examiner has indicated in the outstanding Office Action that Mizocuchi and Honda disclose the non-woven fabric and woven fabric layers may be composed of polyester or nylon fibers and even in the event that the references do not teach the claimed material in both layers with sufficient specificity, it would have been obvious to one of skilled in the art.

To show sufficient specificity and superior effects of the claimed invention, Applicants respectfully submit the Exhibit prepared by selecting the same resins for both layers and the claimed fineness ranges.

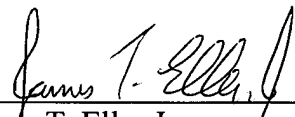
Accordingly, consideration of this Exhibit is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James T. Eller Jr., Reg. No. 39,538 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: **JAN 7 2009**

Respectfully submitted,

By 

James T. Eller Jr.

Registration No.: 39,538

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Attorney for Applicant

Attachment: Exhibit (Actual Samples 1 and 2) under 37 CFR 1.91